IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPEAL BRIEF FOR THE APPELLANT

Ex parte Haitao TANG, *et al.*

DISTRIBUTION SCHEME FOR DISTRIBUTING INFORMATION IN A NETWORK

Serial No. 10/512,061
Confirmation No. 8579
Appeal No.:
Group Art Unit: 2617

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/Keith M. Mullervy/

Keith M. Mullervy
Attorney for Appellant
Reg. No. 62,382

SQUIRE, SANDERS & DEMPSEY LLP
8000 Towers Crescent Drive, 14th Floor
Vienna, VA 22182-6212

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
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In re the Appellant:

Haitao TANG et al.	Appeal No.:
Serial Number: 10/512,061	Group Art Unit: 2617
Filed: October 21, 2004	Examiner: Christopher M. Brandt

Confirmation No. 8579

For: DISTRIBUTION SCHEME FOR DISTRIBUTING INFORMATION IN A NETWORK

BRIEF ON APPEAL

December 16, 2009

This is an appeal from the final rejection set forth in an Official Action dated April 1, 2009 ("Final Office Action"), finally rejecting claims 25-68, all of the claims pending in this application. Claims 25, 28-40, 42-44, 46-47, 49-52, and 55-67 were rejected under 35 U.S.C. §103(a) as being unpatentable over Cidon et al., "Control Mechanisms for High Speed Networks," International Conference on Communications Including Supercomm. Technical Sessions, Atlanta, April 15-19, 1990, vol. 2, April 15, 1990, pages 259-263, XP000146078, ("Cidon"), in view of Yum et al., "Multicast Source routing in Packet-Switched Networks," Networking in the Nineties, Bal Harbour, April 7-11, 1991, Proceedings of the Annual Joint Conference of the Computer and Communications Societies (INFOCOM), Vol. 2, Conf. 10, April 7, 1991, pages 1284-1288, XP010042520, ("Yum"), and further in view of Reinshmidt et al., U.S. Patent Publication No.

2002/0150041, ("Reinshmidt"). Claims 26, 27, 41, 45, 48, 53, 54 and 68 were rejected under 35 U.S.C. §103(a) as being unpatentable over Cidon, in view of Yum and Reinshmidt, and further in view of Neumiller et al., International Publication No. WO 00/70782, ("Neumiller").

A response to the Final Office Action was timely filed on July 1, 2009 ("the Response"). An Advisory Action was mailed on July 20, 2009, maintaining the above rejections and providing brief further comments regarding the Response. A Notice of Appeal, Pre-Appeal Brief Request for Review, and Petition for Extension of Time was timely filed on July 31, 2009. A Notice of Panel Decision from Pre-Appeal Brief Review was issued on November 16, 2009, indicating that the rejections of claims 25-68 were maintained. This Appeal Brief is being timely filed.

I. REAL PARTY IN INTEREST

The real party in interest in this application is Nokia Corporation of Espoo, Finland, by virtue of an Assignment by the inventors, which assignment was recorded at Reel 016723, Frame 0730, on October 21, 2004.

II. STATEMENT OF RELATED APPEALS AND INTERFERENCES

There are no known related appeals and/or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

Claims 25-68 (i.e., all of the claims pending in the present application) are the subject of this appeal. Claims 25, 28-40, 42-44, 46-47, 49-52, and 55-67 were rejected under 35 U.S.C. §103(a) as being unpatentable over Cidon, in view of Yum, and further in view of Reinshmidt. Claims 26, 27, 41, 45, 48, 53, 54 and 68 were rejected under 35 U.S.C. §103(a) as being unpatentable over Cidon, in view of Yum and Reinshmidt, and further in view of Neumiller. Claims 1-24 were previously cancelled by Appellants.

IV. STATUS OF AMENDMENTS

All of claims 25-68 stand as they were previously presented prior to the Final Office Action. No amendments were made after the final rejection. Thus, claims 25-68 are pending, and the rejections of claims 25-68 are appealed. A Response was filed on July 1, 2009, and was entered, but the Response did not include any amendments to the claims.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Claim 25, upon which claims 26-41 are dependent, recites a method, which includes detecting a network parameter change in a network node of the network. (Specification at least at page 3, lines 13-14, and page 9, lines 2-3; Figure 3, "S101"). The method further includes determining, based on topology information of a radio access network, a spanning tree of routing paths corresponding to shortest paths from the network node to other nodes. (Specification at least at page 3, lines 10-12, and page

9, lines 15-17; Figure 6). The method further includes distributing network parameter information indicating the network parameter change from the network node to the other nodes in accordance with the spanning tree. (Specification at least at page 3, lines 15-17, and page 9, lines 8-10; Figure 4, "S103"). The network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send the respective updating information to all of the immediate offspring nodes. (Specification at least at page 4, line 30 – page 5, line 1, and page 8, lines 11-15). The respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure. (Specification at least at page 8, lines 11-15, and page 10, lines 11-20).

Claim 42, upon which claims 43-45 and 53-68 are dependent, recites an apparatus, which includes a detector configured to detect a change in a network parameter related to the apparatus. (Specification at least at page 3, lines 18-25, and page 9, lines 2-3). The apparatus further includes a distributor configured to distribute a network parameter information to network nodes of a transmission network. (Specification at least at page 3, lines 18-25, and page 9, lines 8-10). The distributor distributes the network parameter information indicating the network parameter change towards the network nodes in response to the detection and in accordance with a spanning tree of routing paths corresponding to shortest paths from the apparatus to the network nodes. (Specification at least at page 3, lines 18-25, and page 8, lines 9-15). The apparatus further includes a generator configured to generate for each of a plurality of immediate offspring nodes a respective updating information. (Specification at least

at page 8, lines 9-15). The apparatus further includes a transmitter to send the respective updating information to all the immediate offspring nodes. (Specification at least at page 8, lines 9-15). The respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure. (Specification at least at page 8, lines 11-15, and page 10, lines 11-20).

Claim 46, upon which claims 47-48 are dependent, recites an apparatus, which includes a distributor configured to distribute a network parameter information to network nodes of a radio access network. (Specification at least at page 3, lines 26-33, and page 8, lines 29-36). The apparatus further includes a receiver configured to receive a network parameter information from an upper node, to update a stored parameter information according to the received network parameter information. (Specification at least at page 3, lines 26-33, and page 8, lines 29-36). The distributor distributes the network parameter information to its immediate offspring network nodes based on a branch information included in the network parameter information, the branch information being derived from a spanning tree routing topology. (Specification at least at page 3, lines 26-33, and page 10, lines 21-30). The apparatus further includes an updater configured to update the branch information in the network parameter information before distributing the network parameter information to the network nodes. (Specification at least at page 8, lines 29-36). The updated information is sent to the network nodes and the updated information differs for each of the network nodes based on the spanning tree topology. (Specification at least at page 8, lines 29-36, and page 10, lines 21-30).

Claim 49 recites a system, which includes detecting means for detecting a network parameter change in a network node of a network. (Specification at least at page 3, lines 13-14, and page 9, lines 2-3). The system further includes determining means for determining, based on topology information of a radio access network, a spanning tree of routing paths corresponding to shortest paths from the network node to other nodes. (Specification at least at page 3, lines 10-12, and page 9, lines 15-17). The system further includes distributing means for distributing network parameter information indicating the network parameter change from the network node to the other nodes in accordance with the spanning tree. (Specification at least at page 3, lines 15-17, and page 9, lines 8-10; Figure 4, "S103"). The network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send the respective updating information to all the immediate offspring nodes. (Specification at least at page 4, line 30 – page 5, line 1, and page 8, lines 11-15). The respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure. (Specification at least at page 8, lines 11-15, and page 10, lines 11-20).

Claim 50 recites a computer program embodied on a computer readable medium. (Specification at page 6, lines 10-23, and page 6, line 28 – page 8, line 38). The computer program is configured to control a processor to perform detecting a network parameter change in a network node of the network (Specification at least at page 3, lines 13-14, and page 9, lines 2-3; Figure 3, "S101"), determining, based on topology information of a radio access network, a spanning tree of routing paths corresponding to

shortest paths from the network node to other nodes (Specification at least at page 3, lines 10-12, and page 9, lines 15-17; Figure 6), and distributing network parameter information indicating the network parameter change from the network node to the other nodes in accordance with the spanning tree (Specification at least at page 3, lines 15-17, and page 9, lines 8-10; Figure 4, "S103"). The network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send the respective updating information to all the immediate offspring nodes. (Specification at least at page 4, line 30 – page 5, line 1, and page 8, lines 11-15). The respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure. (Specification at least at page 8, lines 11-15, and page 10, lines 11-20).

Claim 51 recites an apparatus, which includes detecting means for detecting a change in a network parameter related to the apparatus. (Specification at least at page 3, lines 18-25, and page 9, lines 2-3). The apparatus further includes distributing means for distributing a network parameter information to network nodes of a transmission network. (Specification at least at page 3, lines 18-25, and page 9, lines 8-10). The distributing means distributes the network parameter information indicating the network parameter change towards the network nodes in response to the detection and in accordance with a spanning tree of routing paths corresponding to shortest paths from the apparatus to the network nodes. (Specification at least at page 3, lines 18-25, and page 8, lines 9-15). The apparatus further includes generating means for generating for each of a plurality of immediate offspring nodes a respective updating information.

(Specification at least at page 8, lines 9-15). The apparatus further includes transmitting means for transmitting the respective updating information to all of the immediate offspring nodes. (Specification at least at page 8, lines 9-15). The respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure. (Specification at least at page 8, lines 11-15, and page 10, lines 11-20).

Claim 52 recites an apparatus, which includes distributing means for distributing a network parameter information to network nodes of a radio access network. (Specification at least at page 3, lines 26-33, and page 8, lines 29-36). The apparatus further includes receiving means for receiving a network parameter information from an upper node, to update a stored parameter information according to the received network parameter information. (Specification at least at page 3, lines 26-33, and page 8, lines 29-36). The distributing means distributes the network parameter information to its immediate offspring network nodes based on a branch information included in the network parameter information, the branch information being derived from a spanning tree routing topology. (Specification at least at page 3, lines 26-33, and page 10, lines 21-30). The apparatus further includes updating means for updating the branch information in the network parameter information before distributing the network parameter information to the immediate offspring nodes. (Specification at least at page 8, lines 29-36). The updated network parameter information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure. (Specification at least at page 8, lines 29-36, and page 10, lines 21-30).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed on appeal are the rejection of claims 25, 28-40, 42-44, 46-47, 49-52, and 55-67 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Cidon, in view of Yum, and further in view of Reinshmidt, and the rejection of claims 26, 27, 41, 45, 48, 53, 54 and 68 under 35 U.S.C. §103(a) as allegedly being unpatentable over Cidon, in view of Yum and Reinshmidt, and further in view of Neumiller. As will be discussed below, this rejection is in error, and claims 25-68 should all be found to meet the U.S. requirements for patentability under 35 U.S.C. § 103.

VII. APPELLANT'S ARGUMENTS

Appellants respectfully submit that each of the pending claims 25-68 recites patentable subject matter that is not taught, disclosed, or suggested by the cited art. Each of the claims is being argued separately, and thus, each of the claims stands or falls alone.

As reiterated by the Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007), the framework for the objective analysis for determining obviousness under 35 U.S.C. § 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual inquiries. The factual inquiries are: (a) determining the scope and content of the prior art; (b) ascertaining the differences between the claimed invention and the prior art; and (c) resolving the level of ordinary skill in the pertinent art. *See KSR*

International Co. v. Teleflex Inc., 550 U.S. 398, 82 USPQ2d 1385 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966); see also MPEP § 2141. The Supreme Court in *KSR* also noted that the analysis supporting a rejection under 35 U.S.C. § 103 should be made explicit. The court stated that "rejections on obviousness cannot be sustained by mere conclusory statements; instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *See KSR*, 550 U.S. at 398, 82 UPSQ2d at 1396; see also MPEP § 2141.

A. Claims 25, 28-40, 42-44, 46-47, 49-52, and 55-67 are not obvious in view of Cidon, Yum, and Reinshmidt

Cidon describes a high speed packet switching system for integrated voice, video and data communications, known as PARIS. The packet handling functions of PARIS are implemented mainly in dedicated high speed hardware, with only control functions requiring software involvement. The packet handling functions are based on variable sized packets combined with Automatic Network Routing (ANR), a form of source routing where each packet contains an ANR header composed of a concatenation of several link identifiers. The i^{th} identifier in the ANR header defines the outgoing link label of the i^{th} hop along the packet path. As the packet progress through the network, the used identifiers are stripped off, so that the first bits in the ANR field always contain the routing information for the current node. (See Cidon at page 301.1.1., Introduction).

Yum describes an ANR linear source-routing method, where the headers of a packet contain an ANR field where the where the i^{th} word defines the outgoing link label

of the i^{th} hop along the packet's path. All routing information is assembled at the source node and put into the packet, to ensure that no table look-up and external processing is needed beyond the source node as the packet proceeds to each intermediate node towards its destination. (See Yum at 11B.2.1-11B.2.2, Introduction).

Reinshmidt describes a packet routing scheme where a packet starts at an originator node and is forwarded to nodes along an predetermined path. An offset number is implemented in the packet header, so that the next consecutive node along the path will be able to recognize whether the packet is to be forwarded to the next consecutive node, or whether the packet has arrived at its destination. The offset number is compared to the current hop number, which is updated every time the packet enters a node. If the offset number and the current hop number differ, the node puts the next consecutive node's IP address (to which the packet should be forwarded) as the next destination, and updates the current hop number. The modified packet is then transmitted to the next destination. (See Reinshmidt at paragraph 0079).

As will be discussed below, the combination of Cidon, Yum, and Reinshmidt fails to disclose or suggest all of the elements of the claims. Furthermore, as will also be discussed below, the Final Office Action fails to provide an articulated reason as to why the claims would have been obvious to one of ordinary skill in the art, at the time the present invention was made, in light of Cidon, Yum, and Reinshmidt. Thus, this rejection is in error, and claims 28-40, 42-44, 46-47, 49-52, and 55-67 should all be found to meet the U.S. requirements for patentability under 35 U.S.C. § 103.

i) Claim 25

Claim 25, upon which claims 26-41 are dependent, recites a method, which includes detecting a network parameter change in a network node of the network. The method further includes determining, based on topology information of a radio access network, a spanning tree of routing paths corresponding to shortest paths from the network node to other nodes. The method further includes distributing network parameter information indicating the network parameter change from the network node to the other nodes in accordance with the spanning tree. The network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send the respective updating information to all of the immediate offspring nodes. The respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure.

Appellants respectfully submit that Cidon, Yum, and Reinshmidt, whether considered individually or in combination, fail to disclose or suggest, "wherein said network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send said respective updating information to all of the immediate offspring nodes ... wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure," as recited in claim 25.

The Final Office Action correctly concluded that Cidon fails to disclose, or suggest, generating update information and also fails to disclose, or suggest, the updating information that is sent to immediate offspring nodes differing for each of the

immediate offspring nodes. (See Final Office Action at page 5). Furthermore, for at least the following reasons, Yum and Reinshmidt do not cure the deficiencies of Cidon.

In the Final Office Action, the Examiner took the position that the assembling of all the routing information at the source node, described in Yum, discloses the "updating information" recited in claim 25. (See Final Office Action at page 5). Applicants respectfully submit that the Examiner's position is incorrect, because the routing information described in Yum is distinct from the "updating information" recited in claim 25. As a threshold matter, claim terms must be given their plain meaning unless the plain meaning is inconsistent with the specification. *See In re Zeltz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); *see also Chef America Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1372, 69 USPQ2d 1857 (Fed. Cir. 2004). Claim 25 recites "updating information" rather than routing information. The plain and ordinary meaning of the term "update" is to bring up to date. In contrast, the plain and ordinary meaning of the term "route" is to send by a specific path. Thus, the Examiner's interpretation of "updating information" as routing information is contrary to the plain meaning of the term. Furthermore, when interpreted in light of the specification, it is clear that the routing information of Yum is not comparable to the "updating information" of claim 25. Specifically, in describing an embodiment of the invention, the specification states:

> Thus, if it is detected at the initiating node that the parameter Pis has changed at a node NI, the parameter sets Pi are updated according to the new value of the parameter Pis. Then, the initiating node generates for each of its immediate offspring nodes a respective updating information, e.g. an updating tuple, comprising the branch information Rin, the updated parameter value Pis and a node identification Ni-ID of the concerned network node Ni, and sends the respective updating information to all immediate offsoring node. (See Specification at page 8, lines 9-15,

emphasis added).

Thus, the "updating information" of claim 25 relates to the network parameter change in a network node. In contrast, Yum describes the routing information as an outgoing link label of a respective hop along a packet's path in a network (i.e., the destination of the packet in the network). (See Yum at page 1284, column 2, lines 15-18). Therefore, the routing information of Yum fails to disclose the "updating information," as recited in 25. As the Final Office Action correctly concluded, Yum also fails to disclose that the respective updating information sent to the immediate offspring does differs for each of the immediate offspring nodes based on the spanning tree structure. (See Final Office Action at page 5). Therefore, Yum fails to disclose or suggest, "wherein said network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send said respective updating information to all of the immediate offspring nodes ... wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure," as recited in claim 25.

In the Advisory Action, the Examiner further took the position that, while he agrees the specification discloses that "updating information," is related to network parameter changes in a network node, the claims do not define the term "updating information," and therefore, a reasonable interpretation of the term could be routing information. (See Advisory Action at page 2). However, during patent examination, an Examiner must give pending claims their broadest reasonable interpretation consistent with the specification. *See* MPEP § 2111 – Claim Interpretation; Broadest Reasonable Interpretation; *see also*

Phillips v. AWH Corp., 415 F.3d 1303, 75 USPQ2d 132 (Fed. Cir. 2005). As described above, the specification makes clear the "updating information" of claim 25 relates to the network parameter change in a network node. Thus, the Examiner's refusal to consider the specification in interpreting the term "updating information" to read on the routing information described in Yum is clear error, and thus, the rejection should be withdrawn.

Turning to Reinshmidt, Reinshmidt does not cure the above deficiencies of Yum, as Reinshmidt also fails to disclose or suggest generating, at a network node, updating information and sending the updating information to all immediate offspring nodes. Specifically, Reinsmidt describes that a packet is sequentially forwarded from a node to a next consecutive node according to a comparison-based decision made at the next consecutive node, until the packet arrives at the destination node. (See Reinshmidt at paragraph 0079). In addition, each time a packet arrives at a node, if the offset number and the current hop number differ, the node inserts the next consecutive node's internet protocol address in front of the packet, and updates the current hop number. (See Reinshmidt at paragraph 0079). Therefore, Reinshmidt fails to disclose or suggest generating updating information at a network node because the updating of the current hop number (which the Examiner interprets as the updating information; not admitted by Appellants) is not generated at the initiating node, but at each node in which the packet enters. Furthermore, Reinshmidt fails to disclose or suggest sending the updating information to all of the immediate offspring nodes, because not all immediate nodes with respective to their respective immediate preceding node will necessary receive the current hop number (which the Examiner interprets as the updating information; not

admitted by Appellants), if the packet reaches the destination node before arriving at all immediate nodes.

Furthermore, Reinshmidt also fails to disclose or suggest, "wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure," as recited in claim 25, because Reinshmidt fails to disclose or suggest "immediate offspring nodes." In the Final Office Action, the Examiner took the position that the next consecutive nodes described in Reinshmidt discloses the "immediate offspring nodes" recited claim 25. Appellants respectfully submit that the Examiner's position is incorrect. Reinshmidt is not related to a spanning tree structure, where the next nodes are serially disposed and only the first next node can be considered as an immediate node with respect to the initiating node, and all other nodes are only immediate with respect to its preceding node along the chain structure. Instead, in Reinshmidt, any other node in the network may be considered an intermediate node. In contrast, according to an embodiment of the invention, the offspring nodes are disposed in parallel within a spanning tree structure in such a manner that each offspring node can be an immediate node with respect to the initiating node. (See Specification at page 10, lines 3-10; Figure 6). Therefore, Reinshmidt fails to disclose or suggest, "wherein said network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send said respective updating information to all of the immediate offspring nodes ... wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure,"

as recited in claim 25.

Finally, the failure of the Examiner to provide a necessary suggestion or motivation for combining prior art references creates a presumption that the combination of references selected by the Examiner to support the obviousness rejection is based on impermissible hindsight. *See In re Rouffet*, 149 F.3d 1350, 47 USPQ2D 1453, 1458 (Fed. Cir. 1998). While Cidon describes several control mechanisms for high speed networks where the topology broadcast function using a spanning tree structure is merely mentioned as one of a plurality of possible mechanisms, Yum describes a multicast source routing mechanism where a spanning tree structure is used for source routing for multicast packets to provide a point-to-multipoint transmission function. Thus, the Final Office Action has failed to establish the existence of a motivation, either within the cited prior art references or within the knowledge of a person of ordinary skill in the art, at the time the present invention was made, to incorporate the teachings of Yum into the invention of Cidon in order to a disclose a generation of updating information to be forwarded. Because the only place that such a motivation is found is within Appellants' specification, the Examiner has engaged in an impermissible hindsight analysis in order to combine the cited references of Cidon, Yum, and Reinshmidt, which constitutes clear error.

Accordingly, Appellants respectfully submit that Cidon, Yum, and Reinshmidt, whether considered individually or in combination, fail to disclose, teach, or suggest, "wherein said network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send said respective updating

information to all of the immediate offspring nodes ... wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure," as recited in claim 25. Therefore, it is respectfully requested that this rejection be reversed and the claim allowed.

ii) Claim 28

Claim 28 is dependent on claim 25, and recites further limitations. Thus, claim 28 is patentable at least for the reasons claim 25 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

iii) Claim 29

Claim 29 is dependent on claim 25, and recites further limitations. Thus, claim 29 is patentable at least for the reasons claim 25 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

iv) Claim 30

Claim 30 is dependent on claim 25, and recites further limitations. Thus, claim 30 is patentable at least for the reasons claim 25 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

v) Claim 31

Claim 31 is dependent on claim 25, and recites further limitations. Thus, claim 31 is patentable at least for the reasons claim 25 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

vi) Claim 32

Claim 32 is dependent on claim 25, and recites further limitations. Thus, claim 32 is patentable at least for the reasons claim 25 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

vii) Claim 33

Claim 33 is dependent on claim 25, and recites further limitations. Thus, claim 33 is patentable at least for the reasons claim 25 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

viii) Claim 34

Claim 34 is dependent on claim 25, and recites further limitations. Thus, claim 34 is patentable at least for the reasons claim 25 is patentable, and further, because it

recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

ix) Claim 35

Claim 35 is dependent on claim 25, and recites further limitations. Thus, claim 35 is patentable at least for the reasons claim 25 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

x) Claim 36

Claim 36 is dependent on claim 25, and recites further limitations. Thus, claim 36 is patentable at least for the reasons claim 25 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

xi) Claim 37

Claim 37 is dependent on claim 25, and recites further limitations. Thus, claim 37 is patentable at least for the reasons claim 25 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

xii) Claim 38

Claim 38 is dependent on claim 25, and recites further limitations. Thus, claim 38 is patentable at least for the reasons claim 25 is patentable, and further, because it recites additional limitations.

Furthermore, claim 38 also recites "wherein said updating information comprises ... a parameter update information." As described above, the Final Office Action correctly concluded that Cidon fails to disclose updating information, and thus Cidon also fails to disclose or suggest the updating information comprising a parameter update information. Furthermore, based on the reasoning described in Section VII, A, i, Yum does not cure the deficiencies of Cidon, because the routing information of Yum is not comparable to "updating information," of claim 25, and thus, and thus is also not comparable to the "parameter update information" of claim 38. Finally, Reinshmidt fails to cure the deficiencies of Yum, as Reinshmidt merely describes a current hop number, and fails to disclose or suggest "parameter update information" as recited in claim 38.

Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

xiii) Claim 39

Claim 39 is dependent on claim 25, and recites further limitations. Thus, claim 39 is patentable at least for the reasons claim 25 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

xiv) Claim 40

Claim 40 is dependent on claim 25, and recites further limitations. Thus, claim 40 is patentable at least for the reasons claim 25 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

xv) Claim 42

Claim 42, upon which claims 43-45 and 53-68 are dependent, recites an apparatus, which includes a detector configured to detect a change in a network parameter related to the apparatus. The apparatus further includes a distributor configured to distribute a network parameter information to network nodes of a transmission network. The distributor distributes the network parameter information indicating the network parameter change towards the network nodes in response to the detection and in accordance with a spanning tree of routing paths corresponding to shortest paths from the apparatus to the network nodes. The apparatus further includes a generator configured to generate for each of a plurality of immediate offspring nodes a respective updating information. The apparatus further includes a transmitter to send the respective updating information to all the immediate offspring nodes. The respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure.

While each of the claims have their own scope, Appellants respectfully submit that

Cidon, Yum, and Reinshmidt, whether considered individually or in combination, fail to disclose, or suggest, at least, "a generator configured to generate for each of a plurality of immediate offspring nodes a respective updating information," and "wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure," as recited in claim 42 for similar reasons as to why the combination of Cidon, Yum, and Reinshmidt fails to disclose, or suggest, at least, "wherein said network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send said respective updating information to all of the immediate offspring nodes ... wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure," as recited in claim 25, as discussed in Section VII, A, i.

Therefore, it is respectfully requested that this rejection be reversed and the claim allowed.

xvi) Claim 43

Claim 43 is dependent on claim 42, and recites further limitations. Thus, claim 43 is patentable at least for the reasons claim 42 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

xvii) Claim 44

Claim 44 is dependent on claim 42, and recites further limitations. Thus, claim 44 is patentable at least for the reasons claim 42 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

xviii) Claim 46

Claim 46, upon which claims 47-48 are dependent, recites an apparatus, which includes a distributor configured to distribute a network parameter information to network nodes of a radio access network. The apparatus further includes a receiver configured to receive a network parameter information from an upper node, to update a stored parameter information according to the received network parameter information. The distributor distributes the network parameter information to its immediate offspring network nodes based on a branch information included in the network parameter information, the branch information being derived from a spanning tree routing topology. The apparatus further includes an updater configured to update the branch information in the network parameter information before distributing the network parameter information to the network nodes. The updated information is sent to the network nodes and the updated information differs for each of the network nodes based on the spanning tree topology.

While each of the claims have their own scope, Appellants respectfully submit that Cidon, Yum, and Reinshmidt, whether considered individually or in combination, fail to

disclose, or suggest, at least, "a receiver configured ... to update a stored parameter information according to said received network parameter information," "an updater configured to update said branch information in said network parameter information before distributing said network parameter information to said network nodes," and "wherein the updated information is sent to the network nodes and said updated information differs for each of the network nodes based on the spanning tree topology," as recited in claim 46 for similar reasons as to why the combination of Cidon, Yum, and Reinshmidt fails to disclose, or suggest, at least, "wherein said network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send said respective updating information to all of the immediate offspring nodes ... wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure," as recited in claim 25, as discussed in Section VII, A, i.

Therefore, it is respectfully requested that this rejection be reversed and the claim allowed.

xix) Claim 47

Claim 47 is dependent on claim 46, and recites further limitations. Thus, claim 47 is patentable at least for the reasons claim 46 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

xx) Claim 49

Claim 49 recites a system, which includes detecting means for detecting a network parameter change in a network node of a network. The system further includes determining means for determining, based on topology information of a radio access network, a spanning tree of routing paths corresponding to shortest paths from the network node to other nodes. The system further includes distributing means for distributing network parameter information indicating the network parameter change from the network node to the other nodes in accordance with the spanning tree. The network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send the respective updating information to all the immediate offspring nodes. The respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure.

While each of the claims have their own scope, Appellants respectfully submit that Cidon, Yum, and Reinshmidt, whether considered individually or in combination, fail to disclose, or suggest, at least, "wherein said network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send said respective updating information to all of the immediate offspring nodes ... wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure," as recited in claim 49 for similar reasons as to why the combination of Cidon, Yum, and Reinshmidt fails to disclose, or suggest, at least, "wherein said network node is configured to generate, for

each of its immediate offspring nodes, a respective updating information and to send said respective updating information to all of the immediate offspring nodes ... wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure," as recited in claim 25, as discussed in Section VII, A, i.

Therefore, it is respectfully requested that this rejection be reversed and the claim allowed.

xxi) Claim 50

Claim 50 recites a computer program embodied on a computer readable medium. The computer program is configured to control a processor to perform detecting a network parameter change in a network node of the network, determining, based on topology information of a radio access network, a spanning tree of routing paths corresponding to shortest paths from the network node to other nodes, and distributing network parameter information indicating the network parameter change from the network node to the other nodes in accordance with the spanning tree. The network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send the respective updating information to all the immediate offspring nodes. The respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure.

While each of the claims have their own scope, Appellants respectfully submit that

Cidon, Yum, and Reinshmidt, whether considered individually or in combination, fail to disclose, or suggest, at least, "wherein said network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send said respective updating information to all of the immediate offspring nodes ... wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure," as recited in claim 50 for similar reasons as to why the combination of Cidon, Yum, and Reinshmidt fails to disclose, or suggest, at least, "wherein said network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send said respective updating information to all of the immediate offspring nodes ... wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure," as recited in claim 25, as discussed in Section VII, A, i.

Therefore, it is respectfully requested that this rejection be reversed and the claim allowed.

xxii) Claim 51

Claim 51 recites an apparatus, which includes detecting means for detecting a change in a network parameter related to the apparatus. The apparatus further includes distributing means for distributing a network parameter information to network nodes of a transmission network. The distributing means distributes the network parameter information indicating the network parameter change towards the network nodes in

response to the detection and in accordance with a spanning tree of routing paths corresponding to shortest paths from the apparatus to the network nodes. The apparatus further includes generating means for generating for each of a plurality of immediate offspring nodes a respective updating information. The apparatus further includes transmitting means for transmitting the respective updating information to all of the immediate offspring nodes. The respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure.

While each of the claims have their own scope, Appellants respectfully submit that Cidon, Yum, and Reinshmidt, whether considered individually or in combination, fail to disclose, or suggest, at least, "generating means for generating for each of a plurality of immediate offspring nodes a respective updating information," and "wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure," as recited in claim 51 for similar reasons as to why the combination of Cidon, Yum, and Reinshmidt fails to disclose, or suggest, at least, "wherein said network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send said respective updating information to all of the immediate offspring nodes ... wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure," as recited in claim 25, as discussed in Section VII, A, i.

Therefore, it is respectfully requested that this rejection be reversed and the claim

allowed.

xxiii) Claim 52

Claim 52 recites an apparatus, which includes distributing means for distributing a network parameter information to network nodes of a radio access network. The apparatus further includes receiving means for receiving a network parameter information from an upper node, to update a stored parameter information according to the received network parameter information. The distributing means distributes the network parameter information to its immediate offspring network nodes based on a branch information included in the network parameter information, the branch information being derived from a spanning tree routing topology. The apparatus further includes updating means for updating the branch information in the network parameter information before distributing the network parameter information to the immediate offspring nodes. The updated network parameter information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure.

While each of the claims have their own scope, Appellants respectfully submit that Cidon, Yum, and Reinshmidt, whether considered individually or in combination, fail to disclose, or suggest, at least, "receiving means ... to update a stored parameter information according to said received network parameter information," "updating means for updating said branch information in said network parameter information before distributing said network parameter information to said immediate offspring nodes," and

"wherein the updated network parameter information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure," as recited in claim 52 for similar reasons as to why the combination of Cidon, Yum, and Reinshmidt fails to disclose, or suggest, at least, "wherein said network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send said respective updating information to all of the immediate offspring nodes ... wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure," as recited in claim 25, as discussed in Section VII, A, i.

Therefore, it is respectfully requested that this rejection be reversed and the claim allowed.

xxiv) Claim 55

Claim 55 is dependent on claim 42, and recites further limitations. Thus, claim 55 is patentable at least for the reasons claim 42 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

xxv) Claim 56

Claim 56 is dependent on claim 42, and recites further limitations. Thus, claim 56 is patentable at least for the reasons claim 42 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection

be reversed and the claim allowed.

xxvi) Claim 57

Claim 57 is dependent on claim 42, and recites further limitations. Thus, claim 57 is patentable at least for the reasons claim 42 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

xxvii) Claim 58

Claim 58 is dependent on claim 42, and recites further limitations. Thus, claim 58 is patentable at least for the reasons claim 42 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

xxviii) Claim 59

Claim 59 is dependent on claim 42, and recites further limitations. Thus, claim 59 is patentable at least for the reasons claim 42 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

xxix) Claim 60

Claim 60 is dependent on claim 42, and recites further limitations. Thus, claim 60

is patentable at least for the reasons claim 42 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

xxx) Claim 61

Claim 61 is dependent on claim 42, and recites further limitations. Thus, claim 61 is patentable at least for the reasons claim 42 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

xxxi) Claim 62

Claim 62 is dependent on claim 42, and recites further limitations. Thus, claim 62 is patentable at least for the reasons claim 42 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

xxxii) Claim 63

Claim 63 is dependent on claim 42, and recites further limitations. Thus, claim 63 is patentable at least for the reasons claim 42 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

xxxiii) Claim 64

Claim 64 is dependent on claim 42, and recites further limitations. Thus, claim 64 is patentable at least for the reasons claim 42 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

xxxiv) Claim 65

Claim 65 is dependent on claim 42, and recites further limitations. Thus, claim 65 is patentable at least for the reasons claim 42 is patentable, and further, because it recites additional limitations.

Furthermore, claim 65 also recites "wherein said updating information comprises ... a parameter update information." As described above, the Final Office Action correctly concluded that Cidon fails to disclose updating information, and thus Cidon also fails to disclose or suggest the updating information comprising a parameter update information. Furthermore, based on the reasoning described in Section VII, A, i, Yum does not cure the deficiencies of Cidon, because the routing information of Yum is not comparable to "updating information," of claim 25, and thus, and thus is also not comparable to the "parameter update information" of claim 65. Finally, Reinshmidt fails to cure the deficiencies of Yum, as Reinshmidt merely describes a current hop number, and fails to disclose or suggest "parameter update information" as recited in claim 65.

Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

xxxv) Claim 66

Claim 66 is dependent on claim 42, and recites further limitations. Thus, claim 66 is patentable at least for the reasons claim 42 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

xxxvi) Claim 67

Claim 67 is dependent on claim 42, and recites further limitations. Thus, claim 67 is patentable at least for the reasons claim 42 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

B. Claims 26, 27, 41, 45, 48, 53, 54, and 68 are not obvious in view of Cidon, Yum, Reinshmidt, and Neumiller

Cidon, Yum, and Reinshmidt are described above. Neumiller describes a method and selector for performing selection in a communication system. Frames received by base stations are assigned a frame-quality indicator (FQI) by the base station. FQI information for all received frames is sent to a call anchoring base station, where a determination of a base station with the best FQI for each frame takes place. The anchoring base station then sends a FORWARD_FRAME message to the base station with the best FQI. Once the FORWARD_FRAME message is received by the base

station, the base station immediately forwards the frame to the switch, and the switch routes the selected frame accordingly. (See Neumiller at Abstract).

As will be discussed below, the combination of Cidon, Yum, Reinshmidt, and Neumiller fails to disclose or suggest all of the elements of the claims. Furthermore, as will also be discussed below, the Final Office Action fails to provide an articulated reason as to why the claims would have been obvious to one of ordinary skill in the art, at the time the present invention was made, in light of Cidon, Yum, Reinshmidt, and Neumiller. Thus, this rejection is in error, and claims 26, 27, 41, 45, 48, 53, 54, and 68 should all be found to meet the U.S. requirements for patentability under 35 U.S.C. § 103.

i) Claim 26

Claim 26 is dependent on claim 25, and recites further limitations. As discussed in Section VII, A, i, Cidon, Yum, and Reinshmidt, whether considered individually or in combination, fails to disclose or suggest all the elements of claim 25. Furthermore, the Final Office Action has failed to establish that Neumiller fails to cure the deficiencies of Cidon, Yum, and Reinshmidt. Thus, claim 26 is patentable at least for the reasons claim 25 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

ii) Claim 27

Claim 27 is dependent on claim 25, and recites further limitations. As discussed in Section VII, A, i, Cidon, Yum, and Reinshmidt, whether considered individually or in

combination, fails to disclose or suggest all the elements of claim 25. Furthermore, the Final Office Action has failed to establish that Neumiller fails to cure the deficiencies of Cidon, Yum, and Reinshmidt. Thus, claim 27 is patentable at least for the reasons claim 25 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

iii) Claim 41

Claim 41 is dependent on claim 25, and recites further limitations. As discussed in Section VII, A, i, Cidon, Yum, and Reinshmidt, whether considered individually or in combination, fails to disclose or suggest all the elements of claim 25. Furthermore, the Final Office Action has failed to establish that Neumiller fails to cure the deficiencies of Cidon, Yum, and Reinshmidt. Thus, claim 41 is patentable at least for the reasons claim 25 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

iv) Claim 45

Claim 45 is dependent on claim 42, and recites further limitations. As discussed in Section VII, A, xv, Cidon, Yum, and Reinshmidt, whether considered individually or in combination, fails to disclose or suggest all the elements of claim 42. Furthermore, the Final Office Action has failed to establish that Neumiller fails to cure the deficiencies of Cidon, Yum, and Reinshmidt. Thus, claim 45 is patentable at least for the reasons claim 42 is patentable, and further, because it recites additional limitations. Accordingly, it is

respectfully requested that this rejection be reversed and the claim allowed.

v) Claim 48

Claim 48 is dependent on claim 46, and recites further limitations. As discussed in Section VII, A, xviii, Cidon, Yum, and Reinshmidt, whether considered individually or in combination, fails to disclose or suggest all the elements of claim 46. Furthermore, the Final Office Action has failed to establish that Neumiller fails to cure the deficiencies of Cidon, Yum, and Reinshmidt. Thus, claim 48 is patentable at least for the reasons claim 46 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

vi) Claim 53

Claim 53 is dependent on claim 42, and recites further limitations. As discussed in Section VII, A, xv, Cidon, Yum, and Reinshmidt, whether considered individually or in combination, fails to disclose or suggest all the elements of claim 42. Furthermore, the Final Office Action has failed to establish that Neumiller fails to cure the deficiencies of Cidon, Yum, and Reinshmidt. Thus, claim 53 is patentable at least for the reasons claim 42 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

vii) Claim 54

Claim 54 is dependent on claim 42, and recites further limitations. As discussed

in Section VII, A, xv, Cidon, Yum, and Reinshmidt, whether considered individually or in combination, fails to disclose or suggest all the elements of claim 42. Furthermore, the Final Office Action has failed to establish that Neumiller fails to cure the deficiencies of Cidon, Yum, and Reinshmidt. Thus, claim 54 is patentable at least for the reasons claim 42 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

viii) Claim 68

Claim 68 is dependent on claim 42, and recites further limitations. As discussed in Section VII, A, xv, Cidon, Yum, and Reinshmidt, whether considered individually or in combination, fails to disclose or suggest all the elements of claim 42. Furthermore, the Final Office Action has failed to establish that Neumiller fails to cure the deficiencies of Cidon, Yum, and Reinshmidt. Thus, claim 68 is patentable at least for the reasons claim 42 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and the claim allowed.

For all of the above noted reasons, it is strongly contended that certain clear differences exist between the present invention as claimed in claims 25-68 and the prior art relied upon by the Examiner. It is further contended that these differences are more than sufficient that the present invention would not have been obvious to a person having ordinary skill in the art at the time the invention was made.

This final rejection being in error, therefore, it is respectfully requested that this honorable Board of Patent Appeals and Interferences reverse the Examiner's decision in

this case and indicate the allowability of application claims 25-68.

In the event that this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees which may be due with respect to this paper may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

SQUIRE, SANDERS & DEMPSEY LLP

/Keith M. Mullervy/

Keith M. Mullervy
Attorney for Applicants
Registration No. 62,382

Atty. Docket No.: 047092.00101

8000 Towers Crescent Drive, 14th Floor
Vienna, VA 22182-6212
Tel: (703) 720-7800
Fax (703) 720-7802

KMM:sew

Encls: Appendix 1 - Claims on Appeal
Appendix 2 - Evidence
Appendix 3 - Related Proceedings

APPENDIX 1

CLAIMS ON APPEAL

1-24. (Cancelled)

25. (Previously Presented) A method comprising:

detecting a network parameter change in a network node of said network;

determining, based on topology information of a radio access network, a spanning tree of routing paths corresponding to shortest paths from the network node to other nodes; and

distributing network parameter information indicating said network parameter change from said network node to said other nodes in accordance with said spanning tree,

wherein said network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send said respective updating information to all of the immediate offspring nodes;

wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure.

26. (Previously Presented) A method according to claim 25, wherein said network parameter information is used in a network operation and management procedure in a radio access network.

27. (Previously Presented) A method according to claim 26, wherein said network operation and management procedure is macro diversity combining point selection procedure.

28. (Previously Presented) A method according to claim 25, wherein said network parameter information relates to a quality of service related parameter.

29. (Previously Presented) A method according to claim 28, wherein said network parameter information comprises at least one of a link state, a link utilization, a node utilization, and a macro diversity combining load.

30. (Previously Presented) A method according to claim 25, further comprising deriving said topology information from at least one routing table.

31. (Previously Presented) A method according to claim 30, wherein one routing table is provided for each network node.

32. (Previously Presented) A method according to claim 31, wherein said one routing table provides a branch information for each of the immediate offspring nodes of said network node.

33. (Previously Presented) A method according to claim 32, wherein said branch

information indicates branches of the concerned immediate offspring node.

34. (Previously Presented) A method according to claim 25, further comprising deriving said topology information from a link state database of a routing protocol of said transmission network.

35. (Previously Presented) A method according to claim 25, further comprising obtaining said topology information by running a flooding scheme and a shortest-path-first algorithm.

36. (Previously Presented) A method according to claim 25, further comprising deciding on those parameters to be included in said network parameter information based on said topology information.

37. (Previously Presented) A method according to claim 25, wherein said network parameter information comprises said updating information sent to each of the immediate offspring nodes.

38. (Previously Presented) A method according to claim 37, wherein said updating information comprises a branch information, a parameter update information and a node identification of the network node at which said network parameter change has occurred.

39. (Previously Presented) A method according to claim 37, further comprising distributing a received updating information from the immediate offspring nodes of said network node to an immediate offspring node of said immediate offspring nodes based on said branch information.

40. (Previously Presented) A method according to claim 37, further comprising updating a parameter information stored at said immediate offspring nodes using said updating information.

41. (Previously Presented) A method according to claim 25, wherein said transmission network is a radio access network based on internet protocol technology.

42. (Previously Presented) An apparatus, comprising:

a detector configured to detect a change in a network parameter related to said apparatus;

a distributor configured to distribute a network parameter information to network nodes of a transmission network;

wherein the distributor distributes said network parameter information indicating said network parameter change towards said network nodes in response to said detection and in accordance with a spanning tree of routing paths corresponding to shortest paths from said apparatus to said network nodes;

a generator configured to generate for each of a plurality of immediate offspring nodes a respective updating information; and

a transmitter to send said respective updating information to all the immediate offspring nodes,

wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure.

43. (Previously Presented) An apparatus according to claim 42, wherein said spanning tree is derived from a topology information of said transmission network.

44. (Previously Presented) An apparatus according to claim 43, wherein said apparatus is a network node configured to decide on those parameters to be included in said network parameter information based on said topology information.

45. (Previously Presented) An apparatus according to claim 42, wherein said apparatus is a base station of a radio access network.

46. (Previously Presented) An apparatus, comprising:

a distributor configured to distribute a network parameter information to network nodes of a radio access network;

a receiver configured to receive a network parameter information from an upper node, to update a stored parameter information according to said received network

parameter information, and wherein the distributor distributes said network parameter information to its immediate offspring network nodes based on a branch information included in said network parameter information, said branch information being derived from a spanning tree routing topology; and

an updater configured to update said branch information in said network parameter information before distributing said network parameter information to said network nodes,

wherein the updated information is sent to the network nodes and said updated information differs for each of the network nodes based on the spanning tree topology.

47. (Previously Presented) An apparatus according to claim 46, wherein said network nodes are immediate offspring nodes of said network node.

48. (Previously Presented) An apparatus according to claim 46, wherein said network node is a base station device of a radio access network.

49. (Previously Presented) A system, comprising:

detecting means for detecting a network parameter change in a network node of a network;

determining means for determining, based on topology information of a radio access network, a spanning tree of routing paths corresponding to shortest paths from the network node to other nodes; and

distributing means for distributing network parameter information indicating said network parameter change from said network node to said other nodes in accordance with said spanning tree,

wherein said network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send said respective updating information to all the immediate offspring nodes,

wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure.

50. (Previously Presented) A computer program embodied on a computer readable medium, said computer program configured to control a processor to perform:

detecting a network parameter change in a network node of said network;

determining, based on topology information of a radio access network, a spanning tree of routing paths corresponding to shortest paths from the network node to other nodes; and

distributing network parameter information indicating said network parameter change from said network node to said other nodes in accordance with said spanning tree,

wherein said network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send said respective updating information to all the immediate offspring nodes.

wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure.

51. (Previously Presented) An apparatus, comprising:

detecting means for detecting a change in a network parameter related to said apparatus;

distributing means for distributing a network parameter information to network nodes of a transmission network;

wherein the distributing means distributes said network parameter information indicating said network parameter change towards said network nodes in response to said detection and in accordance with a spanning tree of routing paths corresponding to shortest paths from said apparatus to said network nodes,

generating means for generating for each of a plurality of immediate offspring nodes a respective updating information; and

transmitting means for transmitting said respective updating information to all of the immediate offspring nodes,

wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure.

52. (Previously Presented) An apparatus, comprising:

distributing means for distributing a network parameter information to network nodes of a radio access network;

receiving means for receiving a network parameter information from an upper node, to update a stored parameter information according to said received network parameter information, and wherein the distributing means distributes said network parameter information to its immediate offspring network nodes based on a branch information included in said network parameter information, said branch information being derived from a spanning tree routing topology; and

updating means for updating said branch information in said network parameter information before distributing said network parameter information to said immediate offspring nodes,

wherein the updated network parameter information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure.

53. (Previously Presented) The apparatus according to claim 42, wherein said network parameter information is used in a network operation and management procedure in a radio access network.

54. (Previously Presented) The apparatus according to claim 53, wherein said network operation and management procedure is macro diversity combining point selection procedure.

55. (Previously Presented) The apparatus according to claim 42, wherein said

network parameter information relates to a quality of service related parameter.

56. (Previously Presented) The apparatus according to claim 42, wherein said network parameter information comprises at least one of a link state, a link utilization, a node utilization, and a macro diversity combining load.

57. (Previously Presented) The apparatus according to claim 42, further comprising deriving said topology information from at least one routing table.

58. (Previously Presented) The apparatus according to claim 57, wherein one routing table is provided for each network node.

59. (Previously Presented) The apparatus according to claim 58, wherein said one routing table provides a branch information for each of the immediate offspring nodes of said network node.

60. (Previously Presented) The apparatus according to claim 59, wherein said branch information indicates branches of the concerned immediate offspring nodes.

61. (Previously Presented) The apparatus according to claim 42, further comprising

deriving said topology information from a link state database of a routing protocol

of said transmission network.

62. (Previously Presented) The apparatus according to claim 42, further comprising

obtaining said topology information by running a flooding scheme and a shortest-path-first algorithm.

63. (Previously Presented) The apparatus according to claim 42, further comprising

deciding on those parameters to be included in said network parameter information based on said topology information.

64. (Previously Presented) The apparatus according to claim 42, wherein said network parameter information comprises said updating information sent to each of the immediate offspring nodes.

65. (Previously Presented) The apparatus according to claim 64, wherein said updating information comprises a branch information, a parameter update information and a node identification of the network node at which said network parameter change has occurred.

66. (Previously Presented) The apparatus according to claim 64, further

comprising

distributing a received updating information from the immediate offspring nodes of said network node to an immediate offspring node of said immediate offspring nodes based on said branch information.

67. (Previously Presented) The apparatus according to claim 64, further comprising

updating a parameter information stored at said immediate offspring nodes using said updating information.

68. (Previously Presented) The apparatus according to claim 42, wherein said transmission network is a radio access network based on internet protocol technology.

APPENDIX 2

EVIDENCE APPENDIX

No evidence under section 37 C.F.R. 1.130, 1.131, or 1.132 has been entered or will be relied upon by Appellants in this appeal.

APPENDIX 3

RELATED PROCEEDINGS APPENDIX

No decisions of the Board or of any court have been identified under 37 C.F.R. §41.37(c)(1)(ii).